



## **SECOND QUARTER 2006**

# **QUARTERLY GROUNDWATER MONITORING REPORT**

**Sampled on May 13, 2006**

**Job # SP-150**

**LOP # 12170**

**Big Oil & Tire - Glendale BP (Glendale 76)**

1497 Glendale Road  
Arcata, California 95521

July 3, 2006

This *Quarterly Groundwater Monitoring Report* was prepared by SounPacific staff for Big Oil & Tire Co. (BO&T), using previous studies conducted by Clearwater Group, Inc. (CGI) and a review of relevant files at the Humboldt County Department of Health and Human Services: Division of Environmental Health (HCDEH). Glendale 76 (the Site) is located at 1497 Glendale Road, in Arcata, California (Figure 1).

## **SITE DESCRIPTION**

The subject property consists of a single story building with an attached storage building. Surfaces on the Site consist of concrete, asphalt, gravel, and vegetation. The main structure is located in the center of the property with the entrance to the building facing south towards Glendale Road. A second storage building is located next to the eastern property line in the southern portion of the property (Figure 2).

Four 4,000-gallon underground storage tanks (USTs) were located in a single excavation adjacent

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to the southeast corner of the primary structure, and were previously used for storage of three grades of unleaded gasoline. Two dispensers, which were previously used for dispensing fuel onsite, were located on a cement island adjacent to the entrance of the primary structure. A second cement island was located adjacent to the southern property line. The Site is serviced by public utilities. Surface water flows into storm drains (Figure 2).

## **SITE TOPOGRAPHY AND LAND USE**

The subject property was previously used as a retail gas station and Mini-Mart. The property is currently vacant. The Site is located approximately 1,200 feet north of the Mad River and approximately 96 feet above mean sea level (amsl). The Site is located in an area of low topographic relief (Figure 1). Surrounding land use in the vicinity is rural, residential, commercial, and industrial properties. Murphy's Market resides adjacent to the west of the Site. Residential properties lie directly to the east of the Site. Blue Lake Forest Products lies adjacent to the north of the Site. Glendale Road runs adjacent to the southern property line. A commercial storage yard lies directly to the south of the Site, adjacent to the south side of Glendale Road.

## **SITE HISTORY**

Previous studies by Clearwater Group, Inc. (CGI) and SounPacific indicated the following historical information:

### **1998 Initial Subsurface Investigation (CGI)**

In 1998, prior to the interior lining of the Site's USTs, as part of the UST system upgrade requirements, HCDEH required a subsurface investigation to determine if a release had previously occurred associated with the USTs. On January 13<sup>th</sup>, 1998 four (4) soil borings (B-1, B-2, B-3, and B-4) were drilled in the vicinity of the Site's USTs with the objective of collecting soil and groundwater samples to determine if any petroleum contamination was present that had originated from the UST system. In addition, three additional borings (B-5, B-6, and B-7) were hand augured for the collection of subsurface samples. The locations of the borings are shown in Figure 3. Soil and groundwater samples were collected from each boring location, and with the

exception of MTBE at levels of 17 parts per million (ppm), no contamination was identified in the soils. However, TPHg was reported in all four groundwater samples collected, along with elevated levels of BTXE and MTBE. The highest levels of groundwater contamination were reported from borings B-3 and B-4, located on the west and south sides of the USTs, respectively. Laboratory analytical results for the soil and groundwater samples from this investigation are summarized in Tables 1 and 2, respectively.

### **2002 Subsurface Investigation (SounPacific)**

In April 2002, a subsurface investigation was conducted by SounPacific that consisted of drilling and sampling nine (9) soil borings (B-8 through B-12, and MW-1 through MW-4) (Figure 3). Four monitoring wells were installed in the same positions as borings MW-1 through MW-4. Laboratory analytical reported minimal hydrocarbon concentrations in soils from borings B-10, B-12, and MW-1 (Table 1). However, elevated concentrations of TPHg, BTXE, MTBE, and TAME were detected in groundwater samples, particularly in the samples from borings B-10 and B-11 (Table 2), which were located to the south of the USTs.

### **2004 UST Removal (SounPacific)**

In October 2004, Beacom Construction (Beacom) removed four gasoline USTs. Eight (8) compliance soil samples were collected from the UST pit at opposite ends of each UST and two (2) additional soil samples were collected from the east and west sidewalls. The laboratory analytical reported elevated concentrations of TPHg and BTXE in samples 2S, 4N, and 4S (Table 1). In addition, elevated concentrations of TPHd were also detected in soil sample 2S.

### **2005 Subsurface Investigation (SounPacific)**

During September and October 2005, SounPacific conducted a subsurface investigation that took place in three phases. Phase I occurred on September 28, 2005, and consisted of hand-auguring six (6) horizontal borings (B-19 through B-24) in the sidewalls of the UST excavation pit. Soil samples were collected from all borings at horizontal depths of one and three feet. Phase II occurred on October 5, 2005, and consisted of the removal of the product lines, vent piping and

fuel dispenser islands associated with the former USTs. This phase of the investigation was carried out using a backhoe. Eight (8) soil samples (PR-1 through PR-8) were collected along the piping runs at depths of 1.5 feet and 2 feet bgs. Phase III occurred on October 11, 2005, and consisted of drilling eight direct-push borings (B-11 through B-18) to determine the limits of the proposed excavation.

Soil analytical results from recent and previous investigations have confirmed that the previously suspected soil contamination does exist adjacent to the UST area, dispensers, and product lines and that further excavation is necessary adjacent to the south of the former UST pit, former fuel dispenser islands and along the product lines (Table 1).

### **2005 Soil Excavation (SounPacific)**

Soil sampling results from the removal of the Site's USTs and site subsurface investigations concluded that soil contamination was present at the Site that exceeded the 100 ppm clean-up standard and hence required remediation. The contaminated soil was removed during the period of November 8<sup>th</sup> through November 11<sup>th</sup>, 2005 when clean-up standards had been achieved in all accessible areas. Seven (7) confirmation soil samples were collected from the excavation to document the soil contamination levels at the extent of the excavation. All confirmation soil samples reported TPHg levels less than one (1) ppm, except sample SW-6@5' that reported TPHg at a concentration of 1.8 ppm, and hence met the clean-up criteria (Table 1). At the completion of the removal activities, an area of approximately 2,625 square feet and to an average depth of ten feet bgs had been excavated. During the excavation process groundwater monitoring well MW-4 was destroyed. A total of 335.34 tons (approximately 450 cubic yards) of petroleum-contaminated soil was removed from the Site and disposed of at Bio Industries in Red Bluff, California.

## **RESULTS OF QUARTERLY SAMPLING**

Under the approval of the HCDEH, SounPacific is continuing with quarterly groundwater monitoring until further notice. Quarterly water level data is used to generate a two-dimensional groundwater gradient map and calculate groundwater flow direction. Quarterly sampling events

monitor the fluctuation of petroleum hydrocarbons present in the groundwater beneath the Site. Monitoring well MW-4 was destroyed in the recent soil excavation. Monitoring wells were gauged and sampled on May 13<sup>th</sup>, 2006.

### **MONITORING WELL STATUS**

<b>WELL</b>	<b>STATUS</b>	<b>MAINTENANCE / NOTES</b>
MW-1	ACTIVE	Well cap is damaged
MW-2	ACTIVE	none
MW-3	ACTIVE	none
MW-4	DESTROYED	Destroyed during 2005 Soil Excavation

### **FIELD DATA**

**Wells Gauged:** MW-1, 2, and 3

**Groundwater Elevation:** Ranged from 83.56 to 83.77 feet amsl (Table 3)

**Depth to Groundwater:** Ranged from 12.42 to 12.89 feet below the top of casing (Table 3)

**Floating Product:** No sheen detected in any wells

**GW Flow Direction:** SSE (Figure 4)

**GW Gradient:** 0.006 feet per foot (Figure 4)

On May 13<sup>th</sup>, 2006 the depth to groundwater in the Site's three monitoring wells ranged from 12.42 feet below top of casing (btoc) in well MW-3 to 12.89 feet btoc in MW-2. When corrected to mean sea level, water level elevations ranged from 83.56 feet amsl in MW-2 to 83.77 feet amsl in MW-1. Groundwater levels for the May 13<sup>th</sup>, 2006 monitoring event, along with historical levels and elevations are included in Table 3. Groundwater flow was towards the south-southeast with a gradient of 0.006 feet per foot. The groundwater flow and gradient are graphically depicted in Figure 4. Prior to sampling, all wells were purged; the groundwater field parameters for each well are presented on the following page.

### **MONITORING WELL MW-1 GROUNDWATER FIELD PARAMETERS**

<b>Time</b>	<b>Total Vol. Removed/ gal</b>	<b>pH</b>	<b>Temp./ F</b>	<b>Cond./ ms(cm)<sup>-1</sup></b>
-------------	------------------------------------	-----------	-----------------	-----------------------------------

2:00 pm	0	5.42	58.08	0.134
2:04	1.1	5.35	57.35	0.129
2:08	2.2	5.26	57.41	0.131
2:11	3.3	5.26	57.30	0.124

### **MONITORING WELL MW-2 GROUNDWATER FIELD PARAMETERS**

<b>Time</b>	<b>Total Vol. Removed/ gal</b>	<b>pH</b>	<b>Temp./ F</b>	<b>Cond./ ms(cm)<sup>-1</sup></b>
1:30 pm	0	5.03	58.27	0.155
1:36	1	5.07	58.04	0.112
1:40	2	5.06	58.10	0.085
1:43	3	5.11	58.00	0.120

### **MONITORING WELL MW-3 GROUNDWATER FIELD PARAMETERS**

<b>Time</b>	<b>Total Vol. Removed/ gal</b>	<b>pH</b>	<b>Temp./ F</b>	<b>Cond./ ms(cm)<sup>-1</sup></b>
2:26 pm	0	4.72	57.76	0.055
2:32	1.1	4.62	57.06	0.032
2:36	2.2	4.62	57.23	0.039
2:47	3.3	4.60	57.28	0.102

## **ANALYTICAL RESULTS**

**Sampling locations:** MW-1, 2, and 3

**Analyses performed:** TPHg, BTXE, MTBE, DIPE, TAME, ETBE, TBA, TPHd, TPHmo

**Laboratories used:** Basic Laboratory, Inc, Redding California (ELAP #1677)

The analytical results for the current monitoring event are presented below and graphically depicted in Figure 5. The laboratory report is included as Appendix A. The historical analytical results for all monitoring wells, since the implementation of groundwater monitoring are included as Table 4.

**MW-1**  
**(ppb)**

**MW-2**  
**(ppb)**

**MW-3**  
**(ppb)**

<b>TPHg:</b>	ND < 50.0	ND < 50.0	ND < 50.0
<b>Benzene:</b>	ND < 0.5	ND < 0.5	<b>0.5</b>
<b>Toluene:</b>	ND < 0.5	ND < 0.5	ND < 0.5
<b>Xylenes:</b>	ND < 1.0	ND < 1.0	ND < 1.0
<b>Ethylbenzene:</b>	ND < 0.5	ND < 0.5	ND < 0.5
<b>MTBE:</b>	<b>5.4</b>	<b>14.3</b>	<b>4.2</b>
<b>DIPE:</b>	ND < 0.5	ND < 0.5	ND < 0.5
<b>TAME:</b>	<b>0.6</b>	<b>2.2</b>	<b>1.0</b>
<b>ETBE:</b>	ND < 0.5	ND < 0.5	ND < 0.5
<b>TBA:</b>	ND < 50.0	ND < 50.0	ND < 50.0
<b>TPHd:</b>	ND < 50	<b>59</b>	ND < 50
<b>TPHmo:</b>	<b>92</b>	<b>175</b>	<b>153</b>

ND = Not Detected at laboratory method detection limit

## **COMMENTS AND RECOMMENDATIONS**

On May 13<sup>th</sup>, 2006 a groundwater monitoring event of the Site's groundwater monitoring wells was conducted at the Glendale 76 property at 1497 Glendale Road, California. A summary of the results are presented below.

- The depth to groundwater in the three wells onsite wells ranged from 12.42 feet btoc (MW-3) to 12.89 feet btoc (MW-2). Groundwater flow was towards the south-southeast at a gradient of 0.006 feet per foot.
- Groundwater samples from the three onsite wells (MW-1 through MW-3) were collected and analyzed for TPHg, BTXE, MTBE, DIPE, TAME, ETBE, TBA, TPHd, and TPHmo. TPHg was not reported in any of the wells, and benzene was the only aromatic hydrocarbon reported, being present in well MW-3 only at the detection limit of 0.5 ppb (MW-3). MTBE and TAME were reported in all the wells, with MTBE concentrations ranging between 4.2 ppb (MW-3) to 14.3 ppb (MW-2) and TAME concentrations ranging from 0.6 ppb (MW-1) to 2.2 ppb (MW-2). Laboratory results reported TPHd in one well at

a concentration of 59 ppb (MW-2). TPHmo was reported in all wells at concentrations ranging from 92 ppb (MW-1) to 175 ppb (MW-2). Constituents not listed above were not reported at or above the laboratory method detection limits.

Based upon these results the following observations and conclusions have been made.

- Based upon historical results, TPHg and BTXE are not currently of concern at the Site.
- MTBE was present in all wells during the last monitoring event, and has consistently been present since the inception of groundwater monitoring. In general, there has been an overall decrease in MTBE levels in all wells over time. MTBE appears to be the only constituent of concern in groundwater at this time and it appears to be declining based on naturally occurring processes.

Based on the results of the May 2006 monitoring event and historical results, the following future activities are proposed.

- Quarterly groundwater monitoring will be continued until further notice. Quarterly groundwater level measurements will be collected from the three onsite monitoring wells to determine groundwater flow direction and gradient. Collected groundwater samples will be analyzed for TPHg, BTXE, MTBE, TPHd, and TPHmo.
- The Christy Boxes on one or two monitoring wells have been damaged and are in process of being repaired.
- A *Work Plan* for further site delineation was submitted to HCDEH in May 2006. Following discussions with HCDEH staff on June 1, 2006, and in an effort to provide a more economic approach, and to obtain additional data, a *Work Plan Addendum* to the original scope of work was prepared and submitted to HCDEH on June 23, 2006. The Addendum is currently being reviewed by HCDEH.

## CERTIFICATION

This report was prepared under the direct supervision of a California registered geologist at SounPacific. All information provided in this report including statements, conclusions and recommendations are based solely on field observations and analyses performed by a state-certified laboratory. SounPacific is not responsible for laboratory errors.

SounPacific promises to perform all its work in a manner that is used by members in similar professions working in the same geographic area. SounPacific will do whatever is reasonable to ensure that data collection is accurate. Please note however, that rain, buried utilities, and other factors can influence groundwater depths, directions and other factors beyond what SounPacific could reasonably determine.

### **SounPacific**

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Principal Geologist



## **ATTACHMENTS**

### **FIGURES**

- Figure 1: Aerial / Topo Map  
Figure 2: Site Plan  
Figure 3: Sample Location Map  
Figure 4: Groundwater Flow Direction & Gradient: May 2006  
Figure 5: Groundwater Analytical Results  
Figure 6: MW-1 Hydrocarbon Concentrations vs. Time  
Figure 7: MW-2 Hydrocarbon Concentrations vs. Time  
Figure 8: MW-3 Hydrocarbon Concentrations vs. Time  
Figure 9: MW-4 Hydrocarbon Concentrations vs. Time

### **TABLES & CHART**


- Table 1: Soil Analytical Results  
Table 2: Groundwater Analytical Results  
Table 3: Water Levels  
Table 4: Groundwater Analytical Results from Monitoring Wells  
Chart 1: Hydrograph

### **APPENDICES**

- Appendix A: Laboratory Report and Chain-of-Custody Form  
Appendix B: Standard Operating Procedures  
Appendix C: Field Notes













# Figures



 <p><b>Soun Pacific</b> Environmental Services (707) 269-0884</p>	<b>AERIAL/TOPO MAP</b>		<b>Figure</b>
	Glendale 76 1497 Glendale Road Arcata, California 95521	<b>Project No.</b> SP-150	<b>Report Date</b> 7/3/06
			<b>1</b>

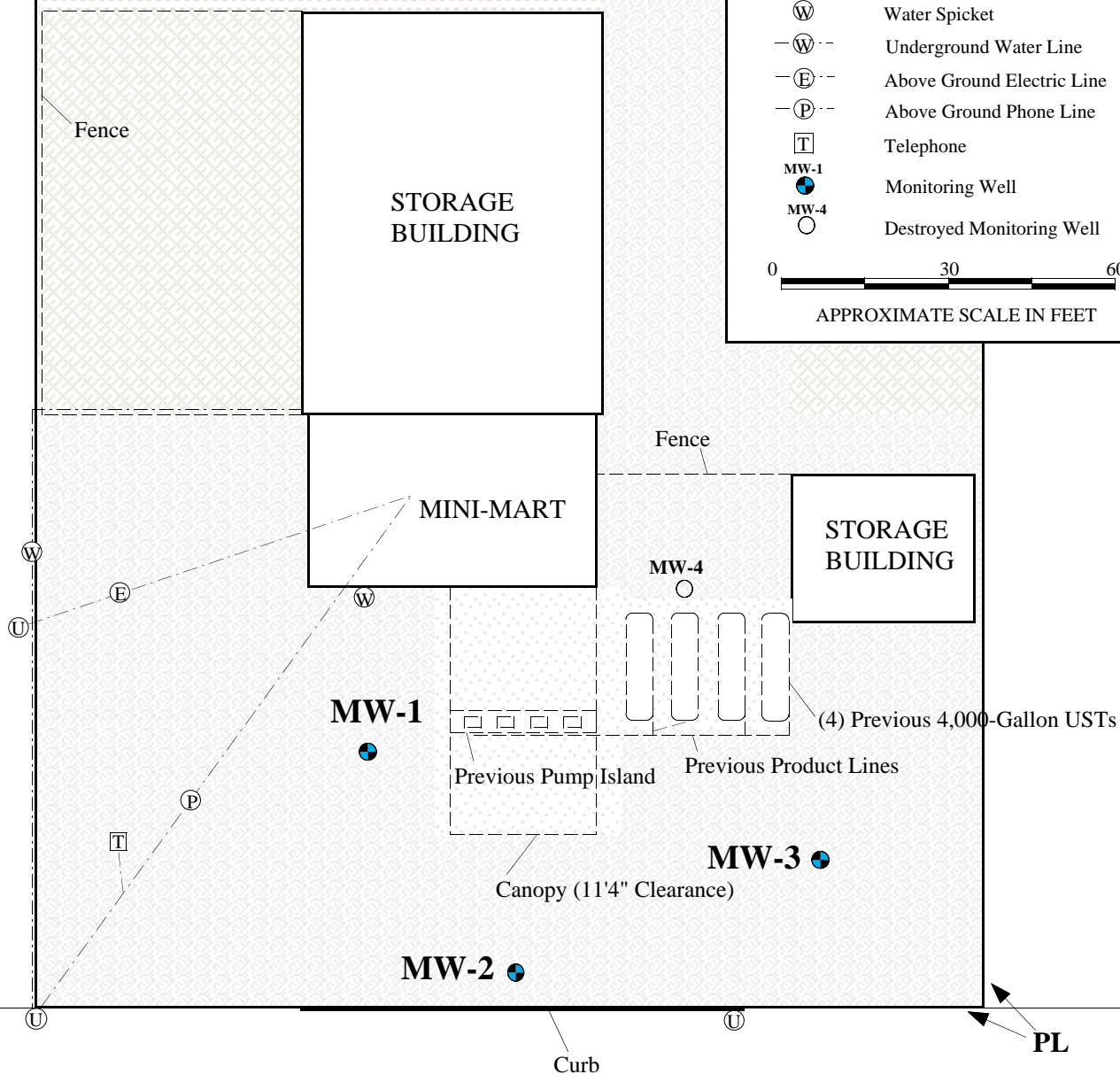
NORTH

## LEGEND

-  Asphalt Surface
-  Cement Surface
-  Gravel/Dirt Surface
-  Vegetation
-  Above Ground Utility Pole
-  Water Spicket
-  Underground Water Line
-  Above Ground Electric Line
-  Above Ground Phone Line
-  Telephone
-  Monitoring Well
-  Destroyed Monitoring Well

0 30 60

APPROXIMATE SCALE IN FEET



GLENDAL ROAD

# SITE PLAN

Figure

Glendale 76  
1497 Glendale Road  
Arcata, California 95521

Project No.

Report Date

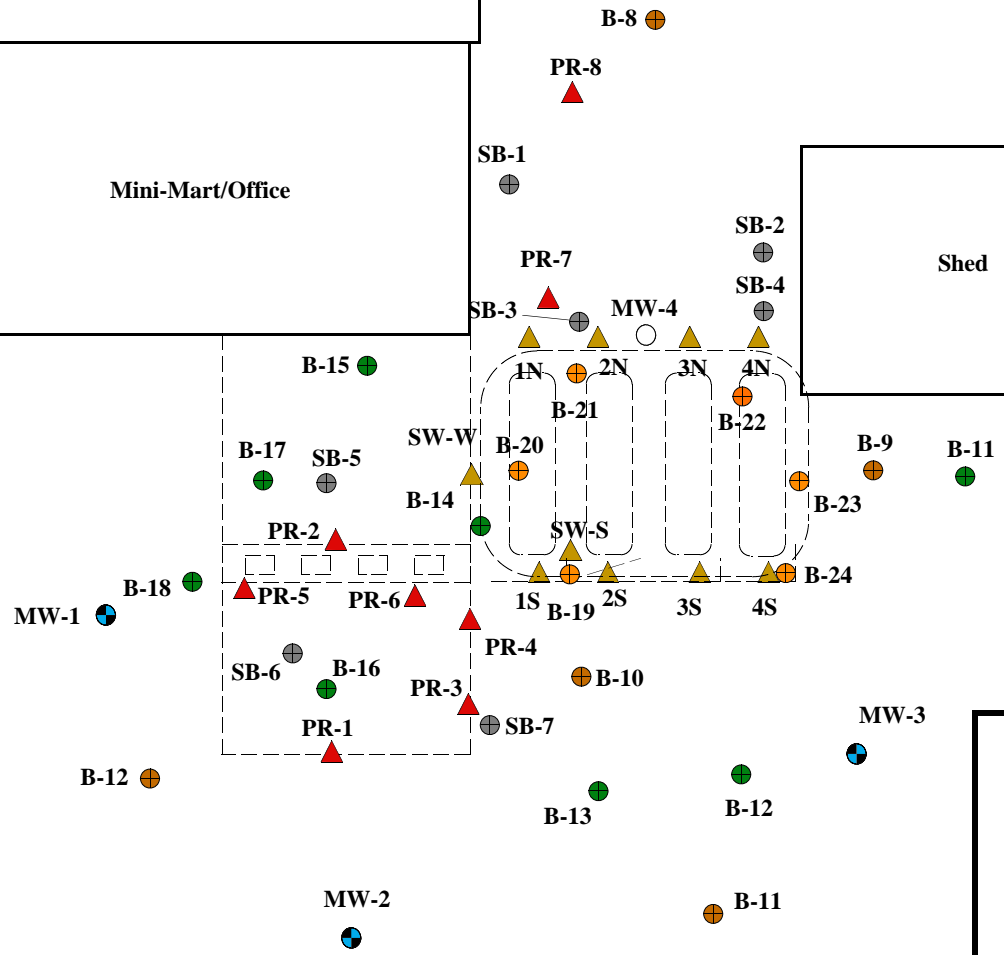
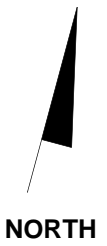
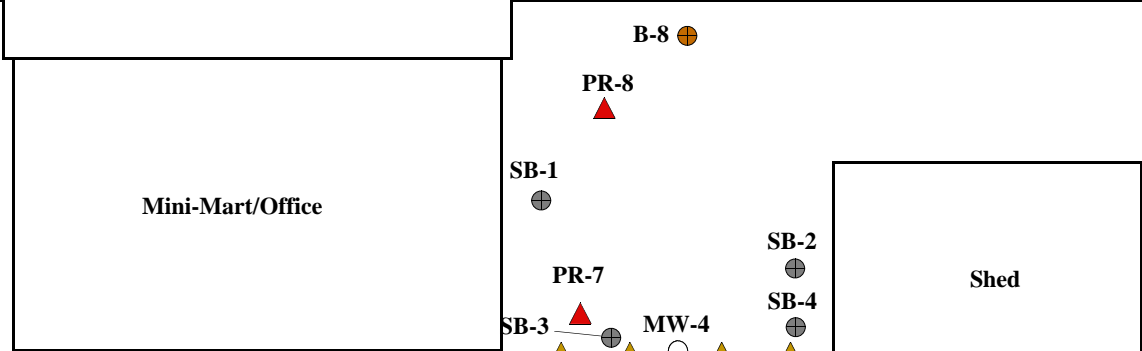
SP-150

7/3/06

2

Environmental

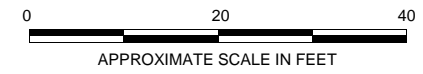
Services



GLENDALE ROAD

### LEGEND

- SB-1 Soil Boring (1/98)
- B-8 Soil Boring (4/02)
- 1N Soil Sample (10/04)
- B-19 Soil Boring (9/05)
- PR-1 Soil Samples (10/05)
- B-13 Soil Boring (10/05)
- MW-1 Monitoring Well



## SAMPLE LOCATION MAP



Glendale 76  
1497 Glendale Road  
Arcata, California 95521

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SP-150

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7/3/06

Figure

3

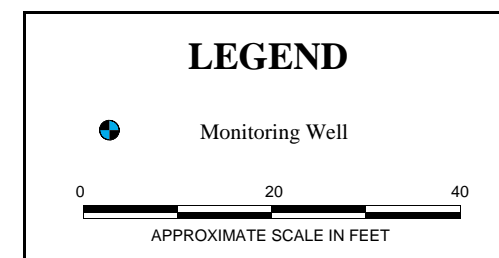
**Note: Flow Direction and Gradient were Calculated using Monitoring Wells MW-1, MW-2, & MW-3**

**NORTH**

<b>MW-1</b>	
Casing Elevation:	96.47
Depth to Water:	12.70
Elevation above MSL:	83.77

<b>MW-2</b>	
Casing Elevation:	96.45
Depth to Water:	12.89
Elevation above MSL:	83.56

<b>MW-3</b>	
Casing Elevation:	96.08
Depth to Water:	12.42
Elevation above MSL:	83.66



**GW Flow Direction: SSE**  
**GW Gradient: 0.006 ft/ft**

**GLENDALE ROAD**



**GROUNDWATER FLOW DIRECTION & GRADIENT  
MAY 2006**

Glendale 76  
1497 Glendale Road  
Arcata, California 95521

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7/3/06

Figure

4

NORTH

## LEGEND



Monitoring Well

Results not shown were detected  
below laboratory detection limits

0 30 60

APPROXIMATE SCALE IN FEET

### Groundwater Results MW-1

MTBE	5.4	ppb
TAME	0.6	ppb
TPHmo	92	ppb

### Groundwater Results MW-3

BTXE	0.5	ppb
MTBE	4.2	ppb
TAME	1.0	ppb
TPHmo	153	ppb

### Groundwater Results MW-2

MTBE	14.3	ppb
TAME	2.2	ppb
TPHd	59	ppb
TPHmo	175	ppb

GLENDALE ROAD

## GROUNDWATER ANALYTICAL RESULTS

Figure

Glendale 76  
1497 Glendale Road  
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Project No.

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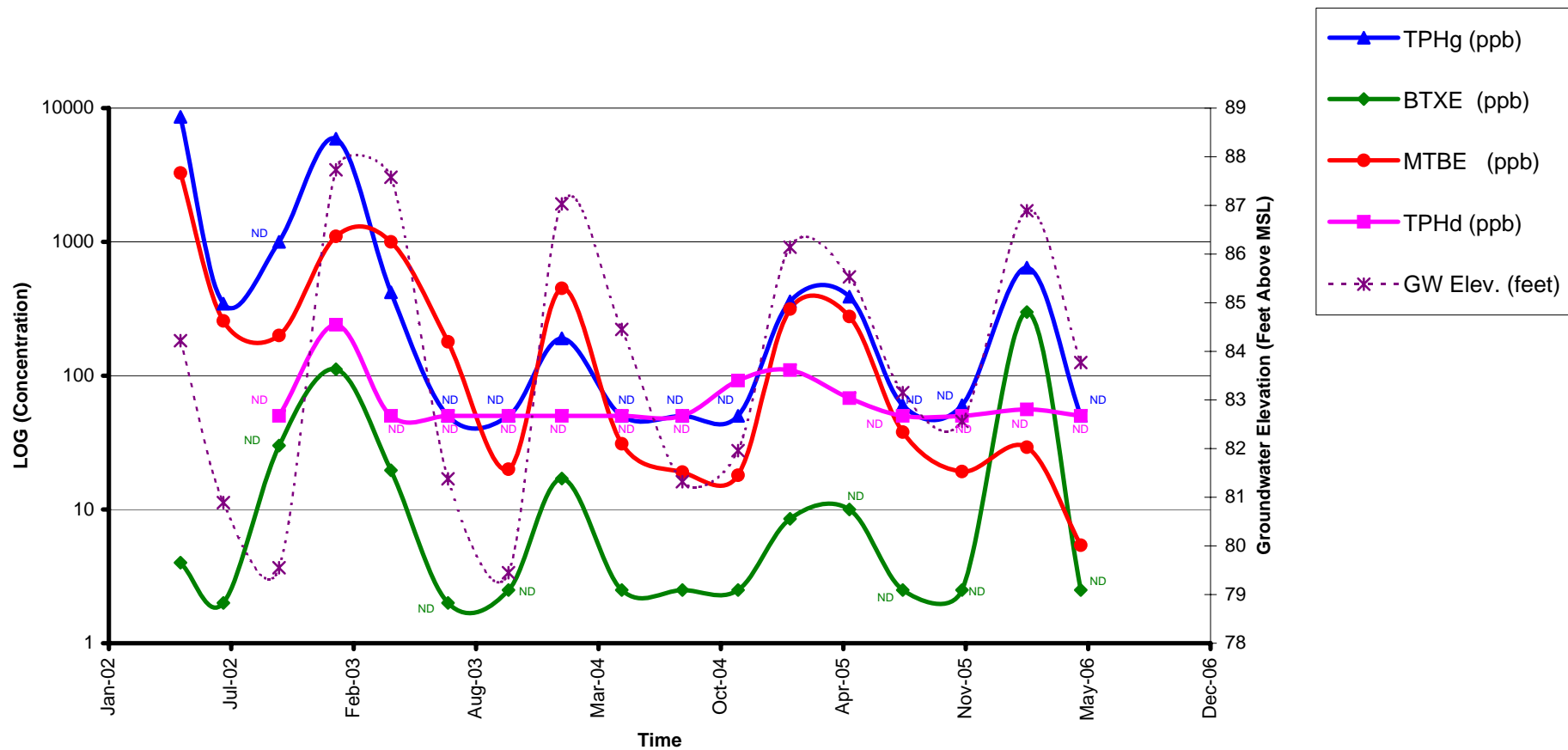
Report Date

7/3/06

5

Environmental

Services



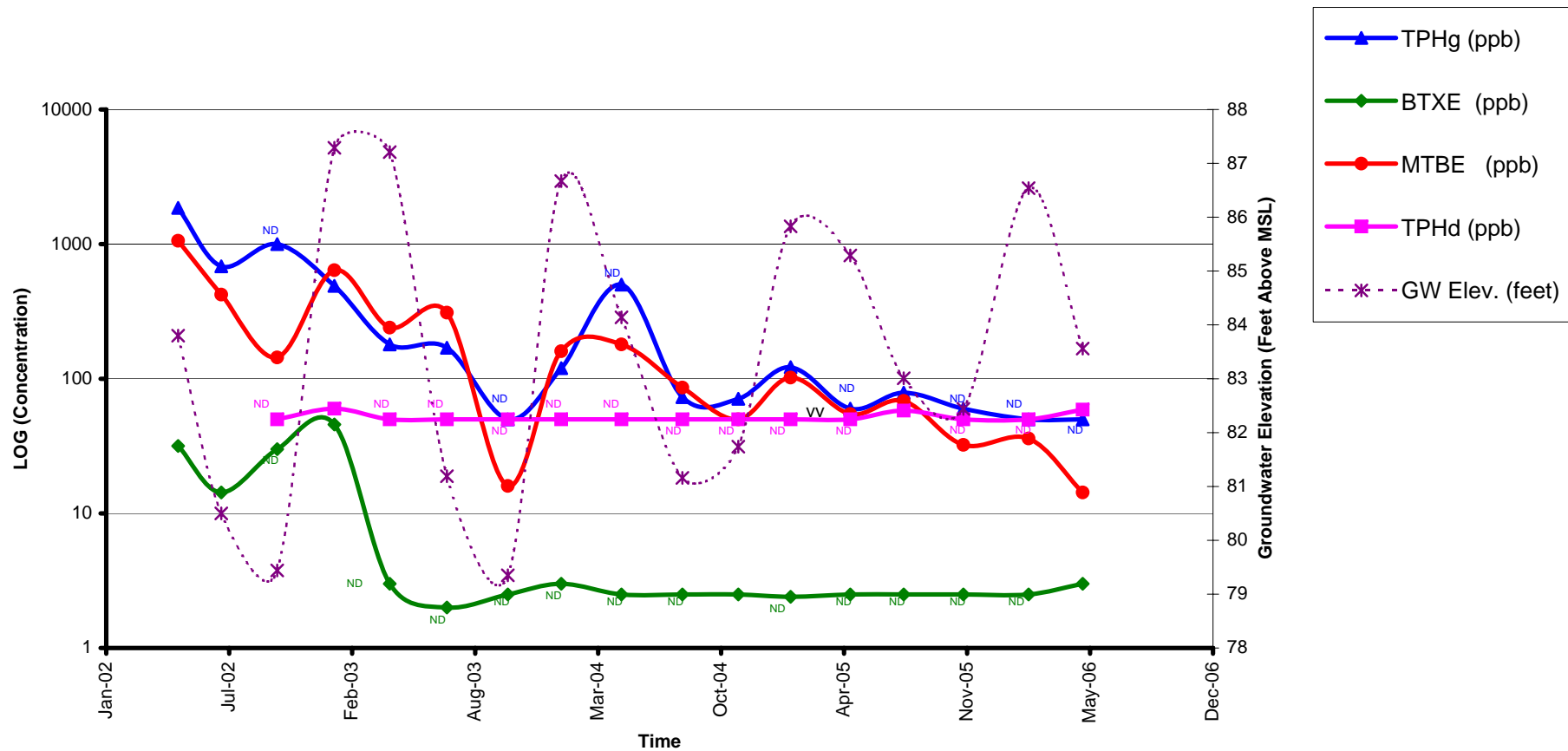
**MW-1 HYDROCARBON  
CONCENTRATIONS VS. TIME**

Glendale 76  
1497 Glendale Road  
Arcata, California 95521

Project No.	Date
SP-150	7/3/2006

Figure

6

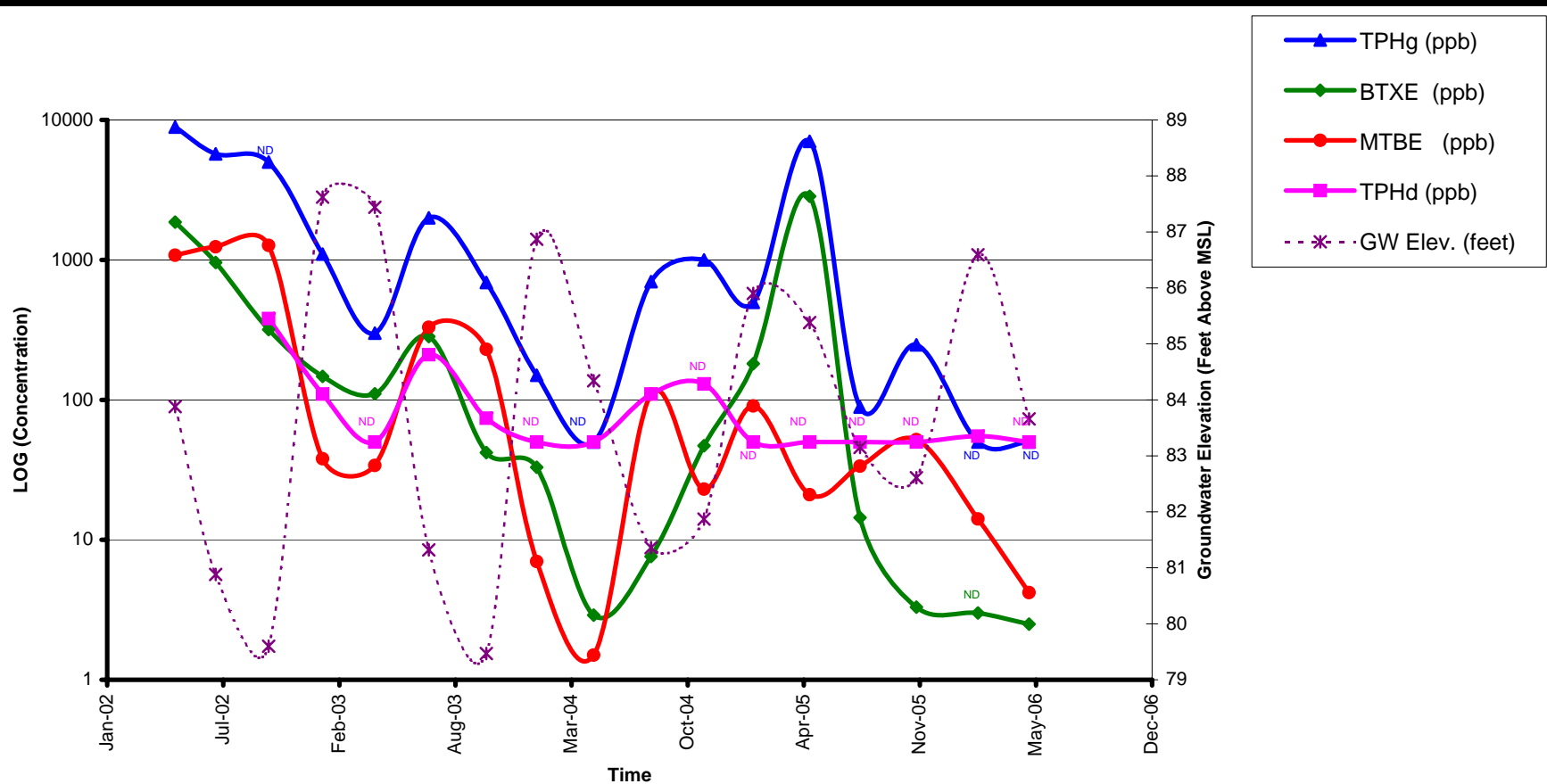



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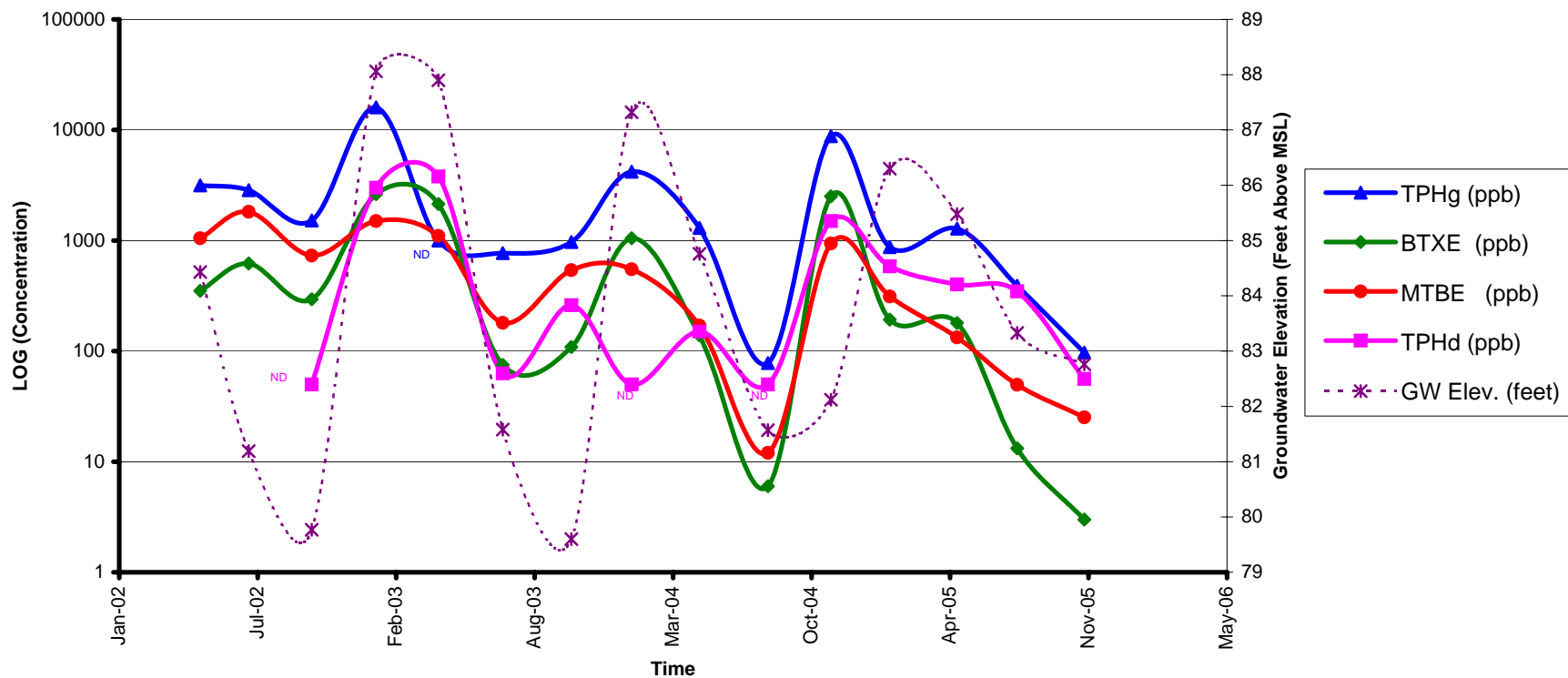
MW-2 HYDROCARBON CONCENTRATIONS VS. TIME		
Glendale 76 1497 Glendale Road Arcata, California 95521	Project No.	Date
	SP-150	7/3/2006

Figure

7



	<b>MW-3 HYDROCARBON CONCENTRATIONS VS. TIME</b>		Figure
	Glendale 76 1497 Glendale Road Arcata, California 95521	Project No.	8
		Date	
		SP-150	7/3/2006



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### MW-4 HYDROCARBON CONCENTRATIONS VS. TIME

Glendale 76  
1497 Glendale Road  
Arcata, California 95521

Project No.

SP-150

Date

7/3/2006

Figure

9

## **Tables & Chart**

**Table 1**  
**Soil Analytical Results**  
 Glendale 76  
 1497 Glendale Road  
 Arcata, California 95521

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	Lead (ppm)
SB-1 @ 8.5	SB-1	1/13/1998	ND < 5	<b>0.07</b>	ND < 0.03	ND < 0.03	ND < 0.03	<b>0.4</b>	----	----	----	----	ND < 1	----
SB-2 @ 9.5	SB-2	1/13/1998	ND < 5	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.3	----	----	----	----	ND < 1	----
SB-3 @ 9.5	SB-3	1/13/1998	ND < 20	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>0.4</b>	<b>17</b>	----	----	----	----	ND < 1	----
SB-4 @ 2.5	SB-4	1/13/1998	ND < 1	<b>0.065</b>	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1	----
SB-4 @ 9.5	SB-4	1/13/1998	ND < 2	ND < 0.01	ND < 0.01	ND < 0.01	ND < 0.01	<b>0.2</b>	----	----	----	----	ND < 1	----
SB-5 @ 2.5	SB-5	1/13/1998	ND < 5	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.3	----	----	----	----	<b>4</b>	----
SB-6 @ 2.5	SB-6	1/13/1998	ND < 5	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.3	----	----	----	----	<b>3</b>	----
SB-7 @ 2.5	SB-7	1/13/1998	ND < 1	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1	----
SB-8 @ 4'	B-8	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-8 @ 8'	B-8	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-8 @ 12'	B-8	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-8 @ 16'	B-8	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.005</b>	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-9 @ 4'	B-9	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	<b>0.12</b>
SB-9 @ 8'	B-9	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-9 @ 12'	B-9	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-9 @ 16'	B-9	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-10 @ 4'	B-10	4/25/2002	ND < 1	<b>0.014</b>	ND < 0.002	ND < 0.006	<b>0.003</b>	<b>0.528</b>	ND < 0.005	<b>0.064</b>	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-10 @ 8'	B-10	4/25/2002	<b>2</b>	<b>0.011</b>	ND < 0.002	ND < 0.006	<b>0.018</b>	<b>1.58</b>	ND < 0.005	<b>0.216</b>	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-10 @ 12'	B-10	4/25/2002	<b>4</b>	<b>0.11</b>	<b>0.021</b>	<b>0.156</b>	<b>0.055</b>	<b>2.11</b>	ND < 0.005	<b>0.292</b>	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-10 @ 16'	B-10	4/25/2002	<b>4</b>	<b>0.086</b>	<b>0.314</b>	<b>0.204</b>	<b>0.058</b>	<b>1.1</b>	ND < 0.005	<b>0.156</b>	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-11 @ 4'	B-11	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-11 @ 8'	B-11	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-11 @ 12'	B-11	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-11 @ 16'	B-11	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-12 @ 4'	B-12	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.006</b>	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-12 @ 8'	B-12	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.074</b>	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-12 @ 12'	B-12	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.148</b>	ND < 0.005	<b>0.017</b>	ND < 0.005	ND < 0.02	----	ND < 0.10
SB-12 @ 16'	B-12	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.051</b>	ND < 0.005	<b>0.005</b>	ND < 0.005	ND < 0.02	----	ND < 0.10
MWSB-1 @ 4'	MW-1	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.141</b>	ND < 0.005	<b>0.009</b>	ND < 0.005	ND < 0.02	----	ND < 0.10
MWSB-1 @ 8'	MW-1	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.16</b>	ND < 0.005	<b>0.013</b>	ND < 0.005	ND < 0.02	----	ND < 0.10
MWSB-1 @ 12'	MW-1	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.744</b>	ND < 0.005	<b>0.114</b>	ND < 0.005	ND < 0.02	----	ND < 0.10

**Table 1 (cont.)**  
**Soil Analytical Results**  
 Glendale 76  
 1497 Glendale Road  
 Arcata, California 95521

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)	Lead (ppm)
MWSB-2 @ 4'	MW-2	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	----	ND < 0.10
MWSB-2 @ 8'	MW-2	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.006</b>	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	----	ND < 0.10
MWSB-2 @ 12'	MW-2	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	<b>0.034</b>	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	----	ND < 0.10
MWSB-3 @ 4'	MW-3	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	----	ND < 0.10
MWSB-3 @ 8'	MW-3	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	----	ND < 0.10
MWSB-3 @ 12'	MW-3	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	----	ND < 0.10
MWSB-4 @ 4'	MW-4	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	----	ND < 0.10
MWSB-4 @ 8'	MW-4	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	----	ND < 0.10
MWSB-4 @ 12'	MW-4	4/25/2002	<b>2</b>	<b>0.104</b>	<b>0.07</b>	<b>0.454</b>	<b>0.037</b>	<b>0.618</b>	ND < 0.005	<b>0.055</b>	ND < 0.005	<b>0.436</b>	----	----	ND < 0.10
UST PIT @ 11'	1N	10/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.055</b>	ND < 0.005	<b>0.014</b>	ND < 0.005	ND < 0.050	ND < 1.0	----	----
UST PIT @ 11'	1S	10/27/2004	ND < 1.0	<b>0.011</b>	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.091</b>	ND < 0.005	<b>0.017</b>	ND < 0.005	ND < 0.050	<b>4.3</b>	----	----
UST PIT @ 11'	2N	10/27/2004	ND < 1.3	<b>0.054</b>	<b>0.093</b>	<b>0.176</b>	<b>0.043</b>	<b>0.50</b>	ND < 0.013	<b>0.17</b>	ND < 0.013	ND < 0.13	<b>3.5</b>	----	----
UST PIT @ 11'	2S	10/27/2004	<b>900</b>	ND < 1.0	ND < 1.0	<b>21</b>	<b>9.3</b>	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	<b>120*</b>	----	----
UST PIT @ 11'	3N	10/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.043</b>	ND < 0.005	<b>0.016</b>	ND < 0.005	ND < 0.050	<b>3.3</b>	----	----
UST PIT @ 11'	3S	10/27/2004	<b>18</b>	<b>0.035</b>	ND < 0.025	<b>0.23</b>	<b>0.095</b>	<b>0.24</b>	ND < 0.025	<b>0.079</b>	ND < 0.025	ND < 0.25	<b>3.9</b>	----	----
UST PIT @ 11'	4N	10/27/2004	<b>320</b>	<b>2.5</b>	<b>18</b>	<b>37</b>	<b>7.2</b>	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 5.0	<b>14*</b>	----	----
UST PIT @ 11'	4S	10/27/2004	<b>600</b>	ND < 0.50	<b>3.2</b>	<b>53</b>	<b>11</b>	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 5.0	<b>13*</b>	----	----
UST PIT @ 6'	SW-W	10/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.046</b>	ND < 0.005	<b>0.011</b>	ND < 0.005	ND < 0.050	ND < 1.0	----	----
UST PIT @ 6'	SW-S	10/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	<b>0.024</b>	<b>0.006</b>	<b>0.072</b>	ND < 0.005	<b>0.017</b>	ND < 0.005	ND < 0.050	<b>1.8</b>	----	----
B-19 @ 1'	UST PIT	9/28/2005	ND < 1.0	ND < 0.0050	ND < 0.0050	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
B-19 @ 3'	UST PIT	9/28/2005	<b>130</b>	<b>0.015</b>	<b>1.9</b>	<b>15.7</b>	<b>2.5</b>	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	<b>33</b>	<b>13</b>	----
B-20 @ 1'	UST PIT	9/28/2005	ND < 1.0	ND < 0.0050	ND < 0.0050	<b>0.0177</b>	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
B-20 @ 3'	UST PIT	9/28/2005	ND < 1.0	ND < 0.0050	ND < 0.0050	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
B-21 @ 1'	UST PIT	9/28/2005	ND < 1.0	ND < 0.0050	<b>0.022</b>	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
B-21 @ 3'	UST PIT	9/28/2005	<b>500</b>	<b>0.036</b>	<b>5.1</b>	<b>45</b>	<b>6.7</b>	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	<b>160</b>	<b>24</b>	----
B-22 @ 1'	UST PIT	9/28/2005	ND < 1.0	ND < 0.0050	<b>0.0074</b>	<b>0.0164</b>	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
B-22 @ 3'	UST PIT	9/28/2005	<b>300</b>	<b>0.060</b>	<b>3.5</b>	<b>27.3</b>	<b>4.0</b>	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	<b>33</b>	<b>10</b>	----
B-23 @ 1'	UST PIT	9/28/2005	ND < 1.0	ND < 0.0050	ND < 0.010	<b>0.0221</b>	<b>0.0060</b>	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
B-23 @ 3'	UST PIT	9/28/2005	ND < 1.0	ND < 0.0050	ND < 0.0050	<b>0.0153</b>	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
B-24 @ 1'	UST PIT	9/28/2005	<b>810</b>	ND < 0.0050	<b>0.019</b>	<b>2.98</b>	<b>0.43</b>	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	<b>22</b>	<b>29</b>	----
B-24 @ 3'	UST PIT	9/28/2005	<b>57</b>	<b>0.053</b>	<b>1.7</b>	<b>4.9</b>	<b>0.81</b>	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	<b>72</b>	<b>15</b>	----
PB-17 @ 4'	B-17	10/11/2005	<b>0.0655</b>	ND < 0.0050	ND < 0.0050	<b>0.0051</b>	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-17 @ 8'	B-17	10/11/2005	<b>0.213</b>	ND < 0.0050	<b>0.0075</b>	<b>0.0242</b>	<b>0.0055</b>	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-17 @ 11'	B-17	10/11/2005	<b>0.387</b>	ND < 0.0050	<b>0.0103</b>	<b>0.0144</b>	ND < 0.0050	<b>0.114</b>	ND < 0.0050	<b>0.0211</b>	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-18 @ 4'	B-18	10/11/2005	<b>0.119</b>	ND < 0.0050	<b>0.0115</b>	<b>0.0090</b>	ND < 0.0050	<b>0.0159</b>	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-18 @ 8'	B-18	10/11/2005	ND < 0.0600	ND < 0.0050	ND < 0.0050	<b>0.0063</b>	ND < 0.0050	<b>0.0074</b>	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-18 @ 11'	B-18	10/11/2005	<b>508</b>	<b>1.94</b>	<b>51.6</b>	<b>85.8</b>	<b>14.2</b>	<b>7.57</b>	ND < 1.25	<b>1.61</b>	ND < 1.25	ND < 12.5	ND < 10	ND < 10	----
PB-18 @ 15'	B-18	10/11/2005	<b>0.272</b>	ND < 0.0050	<b>0.0122</b>	<b>0.0146</b>	ND < 0.0050	<b>0.0383</b>	ND < 0.0050	<b>0.0061</b>	ND < 0.0050	<b>0.0539</b>	ND < 10	ND < 10	----

\* : The sample chromatograph does not match the standard diesel chromatogram. All peaks were integrated within the diesel range. The result is an estimated value.

**Table 1 (cont.)**  
**Soil Analytical Results**  
 Glendale 76  
 1497 Glendale Road  
 Arcata, California 95521

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)	Total Lead (ppm)
PR-1	Product Lines @ 1.5'	10/5/2005	350	0.59	14	27.6	4.4	9.3	ND < 0.020	ND < 0.020	1.7	ND < 0.50	20	120	----
PR-2	Product Lines @ 2'	10/5/2005	17	0.019	0.038	0.284	0.060	0.089	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	51	550	18
PR-3	Product Lines @ 1.5'	10/5/2005	230	0.79	15	23.4	3.8	39	ND < 1.0	4.7	ND < 1.0	ND < 25	110	230	----
PR-4	Product Lines @ 1.5'	10/5/2005	120	0.75	11	8.1	0.84	43	ND < 0.020	4.3	ND < 0.020	2.4	33	230	----
PR-5	Product Lines @ 2'	10/5/2005	89	0.057	0.16	6.6	1.7	0.47	ND < 0.020	0.16	ND < 0.020	ND < 0.50	26	61	----
PR-6	Product Lines @ 2'	10/5/2005	620	1.5	41	79	12	59	ND < 1.0	9.0	ND < 1.0	ND < 25	180	20	15
PR-7	Product Lines @ 1.5'	10/5/2005	88	1.1	15	7.1	1.5	32	ND < 0.020	3.3	ND < 0.020	1.6	26	390	----
PR-8	Product Lines @ 1.5'	10/5/2005	ND < 1.0	ND < 0.0050	0.027	0.0277	0.0060	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	2.8	45	----
PB-11 @ 4'	B-11	10/11/2005	ND < 0.0600	ND < 0.0050	ND < 0.0050	0.0057	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-11 @ 8'	B-11	10/11/2005	3,890	22.1	400	506	88.1	105	ND < 12.5	16.6	ND < 12.5	ND < 125	ND < 10	37	----
PB-11 @ 12'	B-11	10/11/2005	0.298	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	0.293	ND < 0.0050	0.0416	ND < 0.0050	0.0672	ND < 10	ND < 10	----
PB-12 @ 4'	B-12	10/11/2005	0.0733	ND < 0.0050	0.0071	0.0085	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-12 @ 8'	B-12	10/11/2005	4,430	25.9	462	564	98.3	122	ND < 12.5	19.6	ND < 12.5	ND < 125	ND < 10	ND < 10	----
PB-12 @ 12'	B-12	10/11/2005	3,290	17.7	325	413	71.9	84.3	ND < 12.5	13.5	ND < 12.5	ND < 125	ND < 10	ND < 10	----
PB-13 @ 4'	B-13	10/11/2005	0.163	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-13 @ 8'	B-13	10/11/2005	2,490	14.3	259	320	56.2	67.4	ND < 10.0	11.1	ND < 10.0	ND < 100	ND < 10	ND < 10	----
PB-13 @ 11'	B-13	10/11/2005	4,490	25.6	449	559	97.5	123	ND < 12.5	19.2	ND < 12.5	ND < 125	ND < 10	ND < 10	----
PB-14 @ 4'	B-14	10/11/2005	4,740	26.9	482	610	106	128	ND < 12.5	20.3	ND < 12.5	ND < 125	ND < 10	ND < 10	----
PB-14 @ 8'	B-14	10/11/2005	4,070	24.1	433	536	93.2	114	ND < 12.5	17.9	ND < 12.5	ND < 125	ND < 10	ND < 10	----
PB-14 @ 12'	B-14	10/11/2005	2,890	17.7	321	390	68.5	81.8	ND < 6.25	13.8	ND < 6.25	ND < 62.5	ND < 10	ND < 10	----
PB-15 @ 4'	B-15	10/11/2005	0.229	ND < 0.0050	0.0078	0.0118	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
PB-15 @ 8'	B-15	10/11/2005	1,210	7.49	133	163	28.6	39.2	ND < 5.00	5.97	ND < 5.00	ND < 50.0	ND < 10	ND < 10	----
PB-15 @ 11'	B-15	10/11/2005	0.0905	ND < 0.0050	ND < 0.0050	0.0075	ND < 0.0050	0.0171	ND < 0.0050	ND < 0.0050	ND < 0.0050	0.0526	ND < 10	ND < 10	----
PB-16 @ 4'	B-16	10/11/2005	3,960	23.2	416	527	92.4	116	ND < 12.5	18.7	ND < 12.5	ND < 125	ND < 10	ND < 10	----
PB-16 @ 8'	B-16	10/11/2005	2,530	14.6	260	326	56.5	70.1	ND < 10.0	11.3	ND < 10.0	ND < 100	ND < 10	ND < 10	----
PB-16 @ 12'	B-16	10/11/2005	0.260	ND < 0.0050	ND < 0.0050	ND < 0.0050	ND < 0.0050	0.0678	ND < 0.0050	0.0119	ND < 0.0050	ND < 0.0500	ND < 10	ND < 10	----
TR-2	Soil Stockpile	11/9/2005	1,800	5.5	140	176	25	390	----	----	----	----	----	----	----
TR-4	Soil Stockpile	11/9/2005	11,000	28	840	1,140	220	520	----	----	----	----	----	----	----
TR-6	Soil Stockpile	11/9/2005	7,700	21	560	780	140	250	----	----	----	----	----	----	----
TR-8	Soil Stockpile	11/9/2005	4,900	7.1	250	470	77	140	----	----	----	----	----	----	----
TR-10	Soil Stockpile	11/9/2005	8,700	23	640	890	160	380	----	----	----	----	----	----	----
TR-12	Soil Stockpile	11/9/2005	8,200	19	540	810	140	280	----	----	----	----	----	----	----
SW-1 @ 5'	Excavation	11/11/2005	ND < 1.0	ND < 0.0050	0.26	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
SW-2 @ 5'	Excavation	11/11/2005	ND < 1.0	ND < 0.0050	ND < 0.013	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
SW-3 @ 5'	Excavation	11/11/2005	ND < 1.0	ND < 0.0050	0.32	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
SW-4 @ 5'	Excavation	11/11/2005	ND < 1.0	ND < 0.0050	0.33	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
SW-5 @ 5'	Excavation	11/11/2005	ND < 1.0	ND < 0.0050	0.072	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	1.7	13	----
SW-6 @ 5'	Excavation	11/11/2005	1.8	ND < 0.0050	0.39	ND < 0.0150	0.0052	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	1.3	14	----
SW-7 @ 5'	Excavation	11/11/2005	ND < 1.0	ND < 0.0050	0.37	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----
PB-1 @ 10'	Excavation	11/11/2005	ND < 1.0	ND < 0.0050	ND < 0.013	ND < 0.0150	ND < 0.0050	ND < 0.025	ND < 0.020	ND < 0.020	ND < 0.020	ND < 0.50	ND < 1.0	ND < 10	----

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

TPHmo: Total petroleum hydrocarbons as motor oil.

ppm: parts per million = µg/g = mg/kg = 1000 µg/kg

ND: Not detected. Sample was not detected at or above the method detection limit as shown.

**Table 2**  
**Groundwater Analytical Results from Boreholes**  
 Glendale 76  
 1497 Glendale Road  
 Arcata, California 95521

Sample ID	Sample Location	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)
SB-1-GW	SB-1	1/13/1998	210	27	8.3	6	1.3	100	----	----	----	----	50	----
SB-2-GW	SB-2	1/13/1998	290	1.4	ND < 0.5	ND < 0.5	ND < 0.5	590	----	----	----	----	100	----
SB-3-GW	SB-3	1/13/1998	79,000	1,400	4,300	21,000	4,600	20,000	----	----	----	----	ND < 200	----
SB-4-GW	SB-4	1/13/1998	1,400	11	20	40	8	2,000	----	----	----	----	ND < 50	----
SBGW-8 @ 16'	B-8	4/25/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	42.9	ND < 0.5	8.6	ND < 0.5	ND < 100	----	----
SBGW-9 @ 16'	B-9	4/24/2002	152	1.9	ND < 0.3	ND < 0.6	ND < 0.3	50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	----	----
SBGW-10 @ 16'	B-10	4/25/2002	150,000	13,700	43,400	10,600	2,100	198,000	ND < 50	33,300	ND < 50	ND < 1,000	----	----
SBGW-11 @ 16'	B-11	4/24/2002	20,700	2,090	7.4	171	9.9	29,000	ND < 0.5	6,710	ND < 0.5	ND < 50	----	----
SBGW-12 @ 16'	B-12	4/25/2002	978	10.1	0.4	1.8	ND < 0.3	1,470	ND < 0.5	169	ND < 0.5	ND < 100	----	----
PB-11 @ 14.6'	B-11	10/11/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	21.2	ND < 0.5	3.4	ND < 0.5	ND < 50.0	105	92
PB-18 @ 14.8'	B-18	10/11/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	5.7	ND < 0.5	1.0	ND < 0.5	ND < 50.0	ND < 59	79

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TPHmo: Total petroleum hydrocarbons as motor oil.

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm.

ND: Not detected. Sample was detected below the method detection limit as shown.

**Table 3**  
**Water Levels**  
 Glendale 76  
 1497 Glendale Road  
 Arcata, California 95521

Sample Location	Date	Depth to Bottom/ Feet BTOC	Survey Height/ Feet AMSL	Depth to Water/ Feet BTOC	Adjusted Elevation/ Feet AMSL	Thickness of Floating Product/ Feet
MW-1	5/3/2002	19.08	96.47	12.25	84.22	0.00
	6/10/2002	19.22	96.47	13.91	82.56	0.00
	7/12/2002	19.40	96.47	15.58	80.89	0.00
	8/17/2002	18.99	96.47	16.45	80.02	0.00
	9/11/2002	18.97	96.47	16.71	79.76	0.00
	10/11/2002	18.98	96.47	16.92	79.55	0.00
	11/15/2002	18.99	96.47	16.76	79.71	0.00
	12/16/2002	19.29	96.47	14.94	81.53	0.00
	1/12/2003	18.99	96.47	8.74	87.73	0.00
	2/14/2003	18.99	96.47	10.90	85.57	0.00
	3/17/2003	19.29	96.47	11.17	85.30	0.00
	4/12/2003	18.99	96.47	8.89	87.58	0.00
	7/14/2003	19.17	96.47	15.09	81.38	0.00
	10/21/2003	19.17	96.47	17.02	79.45	0.00
	1/16/2004	19.17	96.47	9.44	87.03	0.00
	4/23/2004	19.17	96.47	12.02	84.45	0.00
	7/31/2004	19.18	96.47	15.15	81.32	0.00
	10/30/2004	18.90	96.47	14.51	81.96	0.00
	1/23/2005	19.19	96.47	10.33	86.14	0.00
	4/30/2005	19.19	96.47	10.94	85.53	0.00
	7/26/2005	19.08	96.47	13.32	83.15	0.00
	10/31/2005	19.19	96.47	13.91	82.56	0.00
	2/14/2006	19.20	96.47	9.58	86.89	0.00
	5/13/2006	19.25	96.47	12.70	83.77	0.00
MW-2	5/3/2002	19.15	96.45	12.65	83.80	0.00
	6/10/2002	19.02	96.45	14.30	82.15	0.00
	7/12/2002	19.00	96.45	15.95	80.50	0.00
	8/17/2002	18.86	96.45	16.50	79.95	0.00
	9/11/2002	18.90	96.45	16.79	79.66	0.00
	10/11/2002	18.84	96.45	17.01	79.44	0.00
	11/15/2002	18.87	96.45	16.86	79.59	0.00
	12/16/2002	19.14	96.45	15.35	81.10	0.00
	1/12/2003	18.89	96.45	9.16	87.29	0.00
	2/14/2003	18.91	96.45	11.12	85.33	0.00
	3/17/2003	19.14	96.45	11.47	84.98	0.00
	4/12/2003	18.89	96.45	9.24	87.21	0.00
	7/14/2003	19.04	96.45	15.26	81.19	0.00
	10/21/2003	19.04	96.45	17.10	79.35	0.00
	1/16/2004	19.04	96.45	9.78	86.67	0.00
	4/23/2004	19.04	96.45	12.31	84.14	0.00
	7/31/2004	18.99	96.45	15.29	81.16	0.00
	10/30/2004	18.60	96.45	14.71	81.74	0.00
	1/23/2005	18.90	96.45	10.62	85.83	0.00
	4/30/2005	18.70	96.45	11.16	85.29	0.00
	7/26/2005	19.81	96.45	13.44	83.01	0.00
	10/31/2005	18.89	96.45	14.01	82.44	0.00
	2/14/2006	18.90	96.45	9.91	86.54	0.00
	5/13/2006	18.93	96.45	12.89	83.56	0.00

**Table 3 (cont.)**  
**Water Levels**  
 Glendale 76  
 1497 Glendale Road  
 Arcata, California 95521

Sample Location	Date	Depth to Bottom/ Feet BTOC	Survey Height/ Feet AMSL	Depth to Water/ Feet BTOC	Adjusted Elevation/ Feet AMSL	Thickness of Floating Product/ Feet
MW-3	5/3/2002	19.22	96.08	12.20	83.88	0.00
	6/10/2002	19.20	96.08	13.70	82.38	0.00
	7/12/2002	19.21	96.08	15.20	80.88	0.00
	8/17/2002	19.04	96.08	16.04	80.04	0.00
	9/11/2002	19.10	96.08	16.28	79.80	0.00
	10/11/2002	19.02	96.08	16.48	79.60	0.00
	11/15/2002	19.20	96.08	16.40	79.68	0.00
	12/16/2002	19.45	96.08	11.59	84.49	0.00
	1/12/2003	19.17	96.08	8.46	87.62	0.00
	2/14/2003	19.17	96.08	10.81	85.27	0.00
	3/17/2003	19.45	96.08	10.98	85.10	0.00
	4/12/2003	19.17	96.08	8.64	87.44	0.00
	7/14/2003	19.37	96.08	14.76	81.32	0.00
	10/21/2003	19.37	96.08	16.61	79.47	0.00
	1/16/2004	19.37	96.08	9.21	86.87	0.00
	4/23/2004	19.37	96.08	11.74	84.34	0.00
	7/31/2004	19.44	96.08	14.72	81.36	0.00
	10/30/2004	19.13	96.08	14.21	81.87	0.00
	1/23/2005	19.43	96.08	10.18	85.90	0.00
	4/30/2005	19.35	96.08	10.70	85.38	0.00
	7/26/2005	19.29	96.08	12.93	83.15	0.00
	10/31/2005	19.35	96.08	13.47	82.61	0.00
	2/14/2006	19.42	96.08	9.49	86.59	0.00
	5/13/2006	19.50	96.08	12.42	83.66	0.00
MW-4	5/3/2002	19.15	96.27	11.84	84.43	0.00
	6/10/2002	19.13	96.27	13.46	82.81	0.00
	7/12/2002	19.10	96.27	15.08	81.19	0.00
	8/17/2002	19.00	96.27	16.04	80.23	0.00
	9/11/2002	19.00	96.27	16.33	79.94	0.00
	10/11/2002	19.00	96.27	16.50	79.77	0.00
	11/15/2002	19.12	96.27	16.41	79.86	0.00
	12/16/2002	19.30	96.27	13.25	83.02	0.00
	1/12/2003	19.07	96.27	8.21	88.06	0.00
	2/14/2003	19.11	96.27	10.53	85.74	0.00
	3/17/2003	13.25	96.27	10.64	85.63	0.00
	4/12/2003	19.07	96.27	8.37	87.90	0.00
	7/14/2003	19.27	96.27	14.69	81.58	0.00
	10/21/2003	19.27	96.27	16.67	79.60	0.00
	1/16/2004	19.27	96.27	8.95	87.32	0.00
	4/23/2004	19.27	96.27	11.51	84.76	0.00
	7/31/2004	19.36	96.27	14.70	81.57	0.00
	10/30/2004	19.07	96.27	14.15	82.12	0.00
	1/23/2005	19.35	96.27	9.97	86.30	0.00
	4/30/2005	19.28	96.27	10.60	85.67	0.00
	7/26/2005	19.31	96.27	12.94	83.33	0.00
	10/31/2005	19.33	96.27	13.51	82.76	0.00

Notes:

BTOC: Below Top of Casing

AMSL: Above Mean Sea Level

**Table 4**  
**Groundwater Analytical Results from Monitoring Wells**

Glendale 76  
1497 Glendale Road  
Arcata, California 95521

Sample Location	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)
MW-1	Second Quarter	5/3/2002	<b>8,605</b>	<b>2.9</b>	ND < 0.3	ND < 0.6	ND < 0.3	<b>3,270</b>	ND < 0.5	<b>559</b>	ND < 0.5	ND < 100	NT	NT
	Third Quarter	7/12/2002	<b>345</b>	<b>0.9</b>	ND < 0.3	ND < 0.6	ND < 0.3	<b>257</b>	ND < 0.5	<b>53.4</b>	ND < 0.5	ND < 100	NT	NT
	Fourth Quarter	10/11/2002	ND < 1,000	ND < 6.0	ND < 6.0	ND < 12.0	ND < 6.0	<b>200</b>	ND < 10	<b>38.6</b>	ND < 10	ND < 2,000	ND < 50	ND < 50
	First Quarter	1/12/2003	<b>5,900</b>	<b>18</b>	<b>0.7</b>	<b>92</b>	<b>1.0</b>	<b>1,100</b>	ND < 0.5	<b>160</b>	ND < 0.5	<b>120</b>	<b>240</b>	ND < 500
	Second Quarter	4/12/2003	<b>420</b>	<b>8.7</b>	ND < 0.5	<b>10</b>	<b>0.9</b>	<b>1,000</b>	ND < 0.5	<b>130</b>	ND < 0.5	<b>130</b>	ND < 50	ND < 500
	Third Quarter	7/14/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>79</b>	ND < 0.5	<b>15</b>	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fourth Quarter	10/21/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>20</b>	ND < 0.5	<b>4.0</b>	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	First Quarter	1/16/2004	<b>190</b>	<b>3.6</b>	ND < 0.5	<b>12</b>	<b>1.4</b>	<b>450</b>	ND < 0.5	<b>71</b>	ND < 0.5	<b>21</b>	ND < 50	ND < 500
	Second Quarter	4/23/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>31</b>	ND < 0.5	<b>7.6</b>	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Third Quarter	7/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>19</b>	ND < 0.5	<b>3.9</b>	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fourth Quarter	10/30/2004	ND < 50	ND < 0.5	<b>1.1</b>	ND < 1.0	ND < 0.5	<b>18</b>	ND < 0.5	<b>4.3</b>	ND < 0.5	ND < 5.0	<b>92</b>	ND < 500
	first Quarter	1/23/2005	<b>359</b>	<b>2.7</b>	ND < 2.5	ND < 5.0	ND < 2.5	<b>315</b>	ND < 2.5	<b>55.6</b>	ND < 25.0	ND < 250	<b>110</b>	<b>58</b>
	Second Quarter	4/30/2005	<b>389</b>	ND < 2.0	ND < 2.0	ND < 4.0	ND < 2.0	<b>277</b>	----	----	----	----	<b>68</b>	<b>77</b>
	Third Quarter	7/26/2005	ND < 60	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>37.9</b>	----	----	----	----	ND < 50	<b>146</b>
	Fourth Quarter	10/31/2005	ND < 60	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>19.2</b>	----	----	----	----	ND < 50	<b>121</b>
	First Quarter	2/14/2006	<b>641</b>	<b>25.4</b>	<b>128</b>	<b>117</b>	<b>28.7</b>	<b>29.2</b>	----	----	----	----	ND < 56	ND < 56
MW-2	Second Quarter	5/13/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>5.4</b>	ND < 0.5	<b>0.6</b>	ND < 0.5	ND < 50.0	ND < 50	<b>92</b>
	Second Quarter	5/3/2002	<b>1,860</b>	<b>28.8</b>	<b>0.9</b>	<b>1.4</b>	<b>0.6</b>	<b>1,060</b>	ND < 0.5	<b>204</b>	ND < 0.5	ND < 100	NT	NT
	Third Quarter	7/12/2002	<b>684</b>	<b>10.5</b>	ND < 0.3	<b>3.8</b>	ND < 0.3	<b>422</b>	ND < 0.5	<b>100</b>	ND < 0.5	ND < 100	NT	NT
	Fourth Quarter	10/11/2002	ND < 1,000	ND < 6.0	ND < 6.0	ND < 12.0	ND < 6.0	<b>144</b>	ND < 10	<b>27.0</b>	ND < 10	ND < 2,000	ND < 50	ND < 50
	First Quarter	1/12/2003	<b>490</b>	<b>35</b>	ND < 0.5	<b>10.7</b>	ND < 0.5	<b>640</b>	ND < 0.5	<b>110</b>	ND < 0.5	<b>79</b>	<b>60</b>	ND < 500
	Second Quarter	4/12/2003	<b>180</b>	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>240</b>	ND < 0.5	<b>49</b>	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Third Quarter	7/14/2003	<b>170</b>	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	<b>310</b>	ND < 0.5	<b>59</b>	ND < 0.5	<b>59</b>	ND < 50	ND < 500
	Fourth Quarter	10/21/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>16</b>	ND < 0.5	<b>3.0</b>	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	First Quarter	1/16/2004	<b>120</b>	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	<b>160</b>	ND < 0.5	<b>30</b>	ND < 0.5	<b>18</b>	ND < 50	ND < 500
	Second Quarter	4/23/2004	ND < 500	ND < 5.0	ND < 5.0	ND < 10.0	ND < 5.0	<b>180</b>	ND < 5.0	<b>40</b>	ND < 5.0	ND < 50	ND < 50	ND < 500
	Third Quarter	7/31/2004	<b>73</b>	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>86</b>	ND < 0.5	<b>19</b>	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fourth Quarter	10/30/2004	<b>71</b>	ND < 0.5	<b>0.7</b>	ND < 1.0	ND < 0.5	<b>50</b>	ND < 0.5	<b>10</b>	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	First Quarter	1/23/2005	<b>122</b>	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>102</b>	ND < 0.5	<b>24.2</b>	ND < 5.0	ND < 50.0	ND < 50	<b>81</b>
	Second Quarter	4/30/2005	ND < 60	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>54.7</b>	----	----	----	----	ND < 50	<b>100</b>
	Third Quarter	7/26/2005	<b>78.7</b>	ND < 0.6	ND < 0.5	ND < 1.0	ND < 0.5	<b>68.5</b>	----	----	----	----	<b>58</b>	<b>168</b>
	Fourth Quarter	10/31/2005	ND < 60	ND < 0.7	ND < 0.5	ND < 1.0	ND < 0.5	<b>32.3</b>	----	----	----	----	ND < 50	<b>115</b>
	First Quarter	2/14/2006	ND < 50.0	ND < 0.8	ND < 0.5	ND < 1.0	ND < 0.5	<b>36.0</b>	----	----	----	----	ND < 50	<b>116</b>
	Second Quarter	5/13/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	<b>14.3</b>	ND < 0.5	<b>2.2</b>	ND < 0.5	ND < 50.0	<b>59</b>	<b>175</b>

**Table 4 (cont.)**  
**Groundwater Analytical Results from Monitoring Wells**

Glendale 76  
1497 Glendale Road  
Arcata, California 95521

Sample Location	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)
MW-3	Second Quarter	5/3/2002	8,900	387	378	743	352	1,080	ND < 0.5	37.2	ND < 0.5	ND < 100	NT	NT
	Third Quarter	7/12/2002	5,720	376	94.3	258	230	1,240	ND < 5.0	285	ND < 5.0	ND < 1,000	NT	NT
	Fourth Quarter	10/11/2002	ND < 5,000	318	ND < 30.0	ND < 60.0	ND < 30.0	1,270	ND < 100	369	ND < 100	ND < 10,000	381	ND < 50
	First Quarter	1/12/2003	1,100	19	62	48	18	38	ND < 0.5	8.8	ND < 0.5	ND < 5.0	110	ND < 500
	Second Quarter	4/12/2003	300	21	45	30.4	14	34	ND < 0.5	9.2	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Third Quarter	7/14/2003	2,000	170	11	44	58	330	ND < 5.0	97	ND < 5.0	ND < 50	210	ND < 500
	Fourth Quarter	10/21/2003	690	42	ND < 5.0	ND < 10.0	ND < 5.0	230	ND < 5.0	58	ND < 5.0	ND < 50	74	ND < 500
	First Quarter	1/16/2004	150	5.2	12	9.2	5.9	6.6	ND < 0.5	2.1	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Second Quarter	4/23/2004	ND < 50	0.5	ND < 0.5	0.7	0.7	1.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Third Quarter	7/31/2004	700	7.6	ND < 0.5	ND < 1.0	2.4	110	ND < 0.5	35	ND < 0.5	42	110	ND < 500
	Fourth Quarter	1/27/2005	1,000	14	9.8	14	8.8	23	ND < 0.5	6.9	ND < 0.5	ND < 5.0	130	ND < 500
	First Quarter	1/23/2005	498	102	7.2	68.9	3.4	90.6	ND < 0.5	19.5	ND < 5.0	ND < 50.0	ND < 50	ND < 50
	Second Quarter	4/30/2005	7,030	14.6	635	1,890	306	21.0	----	----	----	----	ND < 50	52
	Third Quarter	7/26/2005	88.9	12.4	ND < 0.5	ND < 1.0	ND < 0.5	33.6	----	----	----	----	ND < 50	60
	Fourth Quarter	10/31/2005	247	1.3	ND < 0.5	ND < 1.0	ND < 0.5	52.0	----	----	----	----	ND < 50	73
	First Quarter	2/14/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	14.1	----	----	----	----	55	93
	Second Quarter	5/13/2006	ND < 50.0	0.5	ND < 0.5	ND < 1.0	ND < 0.5	4.2	ND < 0.5	1.0	ND < 0.5	ND < 50.0	ND < 50	153
MW-4	Second Quarter	5/3/2002	3,150	138	40	124	49.5	1,050	ND < 0.5	131	ND < 0.5	NT	NT	NT
	Third Quarter	7/12/2002	2,850	256	17.5	181	167	1,820	ND < 0.5	241	ND < 0.5	ND < 100	NT	NT
	Fourth Quarter	10/11/2002	1,520	117	ND < 0.3	111	66.7	732	ND < 5.0	115	ND < 5.0	ND < 1,000	ND < 50	ND < 50
	First Quarter	1/12/2003	16,000	220	170	1,900	340	1,500	ND < 50	160	ND < 50	ND < 500	3,000	ND < 500
	Second Quarter	4/12/2003	ND < 1,000	210	180	1,320	430	1,100	ND < 50	130	ND < 50	ND < 500	3,800	ND < 500
	Third Quarter	7/14/2003	770	33	ND < 5.0	17	20	180	ND < 5.0	29	ND < 5.0	ND < 50	63	ND < 500
	Fourth Quarter	10/21/2003	970	80	ND < 5.0	7.8	21	540	ND < 5.0	85	ND < 5.0	ND < 50	260	ND < 500
	First Quarter	1/16/2004	4,200	90	29	710	220	550	ND < 5.0	73	ND < 5.0	420	ND < 50	ND < 500
	Second Quarter	4/23/2004	1,300	26	ND < 5.0	79	34	170	ND < 5.0	27	ND < 5.0	170	150	ND < 500
	Third Quarter	7/31/2004	78	2.9	ND < 0.5	ND < 1	1.1	12	ND < 0.5	1.9	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fourth Quarter	10/30/2004	8,800	230	32	1,600	650	940	ND < 5.0	200	ND < 5.0	640	1,500	ND < 500
	First Quarter	1/23/2005	872	24.2	2.3	109	57.0	312.0	ND < 1.2	30.6	ND < 12.5	198	585	52
	Second Quarter	4/30/2005	1,280	17.8	20.0	92.4	49.3	133	ND < 1.0	14.5	ND < 1.0	131	401	92
	Third Quarter	7/26/2005	391	4.4	ND < 0.5	5.2	3.1	49.6	ND < 0.5	6.1	ND < 0.5	ND < 50	347	71
	Fourth Quarter	10/31/2005	96.9	1.0	ND < 0.5	ND < 1.0	ND < 0.5	25.2	ND < 0.5	3.2	ND < 0.5	ND < 50	56	80

Notes:

TPHg: Total Petroleum Hydrocarbons as gasoline

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl Ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TBA: Tertiary butanol

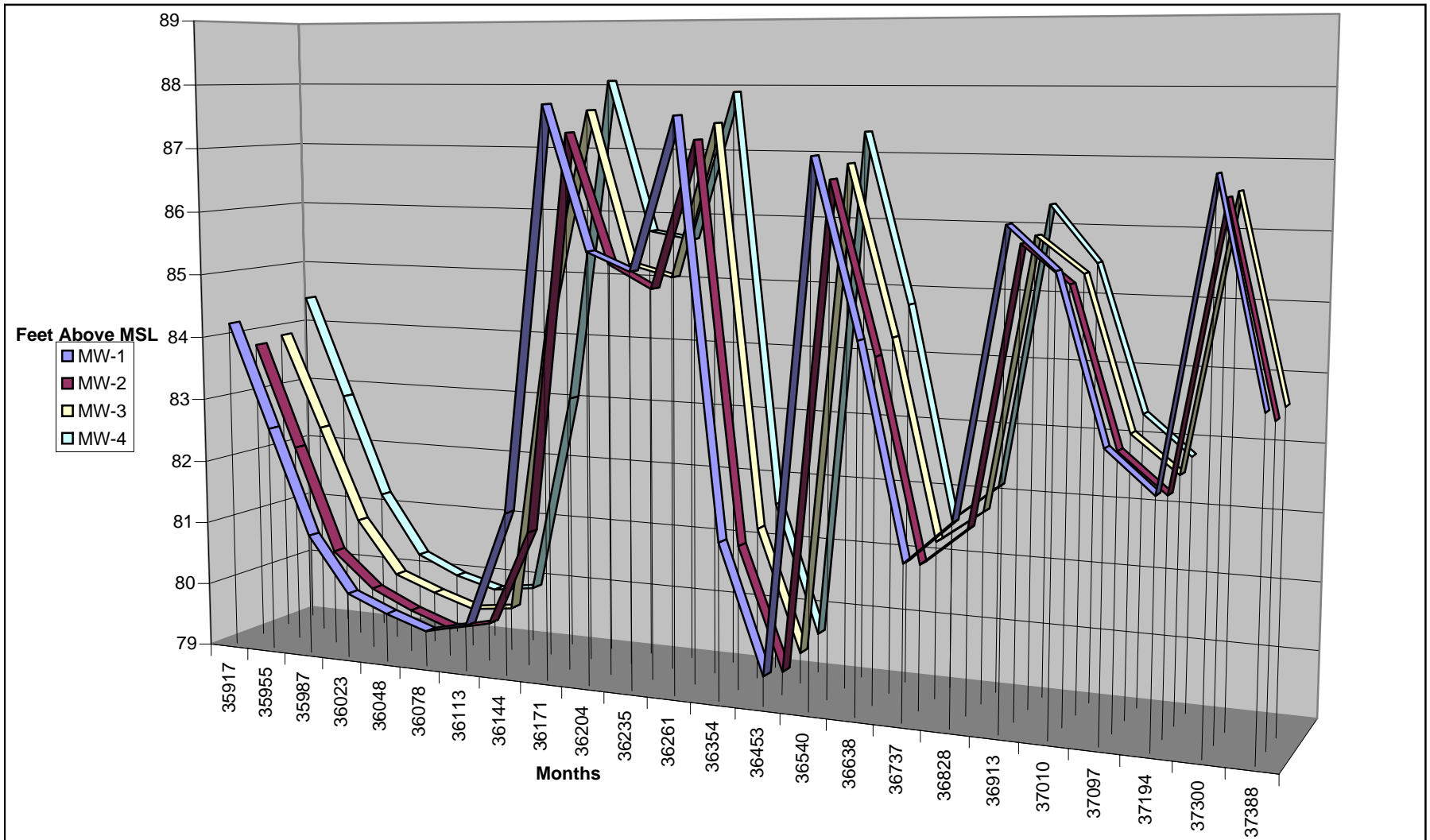
TPHd: Total Petroleum Hydrocarbons as diesel

TPHmo: Total petroleum hydrocarbons as motor oil

ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm

ND: Not detected. Sample was detected at or below the method detection limit as shown.

**Chart 1**  
**Monthly Hydrograph**  
Glendale 76  
1497 Glendale Road  
Arcata, California 95521



# Appendices

# Appendix A



www.basiclab.com

voice 530.243.7234

fax 530.243.7494

2218 Railroad Avenue

Redding, California 96001

June 01, 2006

**Lab ID: 6050664**

Jeff Gaines

SOUNPACIFIC

4612 GREENWOOD HEIGHTS DR

KNEELAND, CA 95549

RE: GLENDALE 76 SP-150 16th QUARTERLY MONITORING

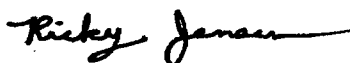
Dear Jeff Gaines,

Enclosed are the analysis results for Work Order number 6050664. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,

  
For



Ricky D. Jensen  
Laboratory Director

California ELAP Certification Number 1677



basic  
laboratory

www.basiclab.com

voice 530.243.7234 2218 Railroad Avenue  
fax 530.243.7494 Redding, California 96001

**Report To:** SOUNPACIFIC  
4612 GREENWOOD HEIGHTS DR  
KNEELAND, CA 95549  
**Attention:** Jeff Gaines  
**Project:** GLENDALE 76 SP-150 16th QUARTERLY MONITORING

**Lab No:** 6050664  
**Reported:** 06/01/06  
**Phone:** (707) 269-0884  
**P.O. #**

### Volatile Organic Compounds

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
<b>MW-1 Water (6050664-01) Sampled:05/13/06 00:00 Received:05/17/06 10:02</b>									
Gasoline	ug/l	ND			50.0	EPA 8015/8260	05/19/06	05/19/06	B6E0512
Benzene	"	ND			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	5.4			1.0	"	"	"	"
Di-isopropyl ether	"	ND			0.5	"	"	"	"
Tert-amyl methyl ether	"	0.6			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		91.8 %		43-155		"	"	"	"
<b>MW-2 Water (6050664-02) Sampled:05/13/06 00:00 Received:05/17/06 10:02</b>									
Gasoline	ug/l	ND			50.0	EPA 8015/8260	05/19/06	05/19/06	B6E0512
Benzene	"	ND			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	14.3			1.0	"	"	"	"
Di-isopropyl ether	"	ND			0.5	"	"	"	"
Tert-amyl methyl ether	"	2.2			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		92.6 %		43-155		"	"	"	"
<b>MW-3 Water (6050664-03) Sampled:05/13/06 00:00 Received:05/17/06 10:02</b>									
Gasoline	ug/l	ND			50.0	EPA 8015/8260	05/19/06	05/19/06	B6E0512
Benzene	"	0.5			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	4.2			1.0	"	"	"	"
Di-isopropyl ether	"	ND			0.5	"	"	"	"
Tert-amyl methyl ether	"	1.0			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		93.0 %		43-155		"	"	"	"

  
Approved By

Basic Laboratory, Inc.  
California D.O.H.S. Cert #1677



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laboratory

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voice 530.243.7234 2218 Railroad Avenue  
fax 530.243.7494 Redding, California 96001

**Report To:** SOUNPACIFIC  
4612 GREENWOOD HEIGHTS DR  
KNEELAND, CA 95549  
**Attention:** Jeff Gaines  
**Project:** GLENDALE 76 SP-150 16th QUARTERLY MONITORING

**Lab No:** 6050664  
**Reported:** 06/01/06  
**Phone:** (707) 269-0884  
**P.O. #**

### TPH Diesel & Motor Oil

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
<b>MW-1 Water (6050664-01) Sampled:05/13/06 00:00 Received:05/17/06 10:02</b>									
Diesel	ug/l	ND			50	EPA 8015 MOD	05/23/06	05/17/06	B6E0411
Motor Oil	"	92			50	"	"	"	"
Surrogate: Octacosane		91.8 %		50-150		"	"	"	"
<b>MW-2 Water (6050664-02) Sampled:05/13/06 00:00 Received:05/17/06 10:02</b>									
Diesel	ug/l	59			50	EPA 8015 MOD	05/23/06	05/17/06	B6E0411
Motor Oil	"	175			50	"	"	"	"
Surrogate: Octacosane		96.3 %		50-150		"	"	"	"
<b>MW-3 Water (6050664-03) Sampled:05/13/06 00:00 Received:05/17/06 10:02</b>									
Diesel	ug/l	ND			50	EPA 8015 MOD	05/23/06	05/17/06	B6E0411
Motor Oil	"	153			50	"	"	"	"
Surrogate: Octacosane		107 %		50-150		"	"	"	"

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maximum Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure

  
Approved By

Basic Laboratory, Inc.  
California D.O.H.S. Cert #1677

LAB #:  
6050664

INSTRUCTIONS, TERMS AND CONDITIONS ON BACK.

## **Appendix B**



## **Standard Operating Procedures**

### **Groundwater Level Measurements and Free Phase Hydrocarbon Measurements**

All SounPacific staff and contractors shall adopt the following procedures any time that groundwater elevations are determined for the purposes of establishing groundwater gradient and direction, and prior to any sampling event.

Wells are to be tested for free phase hydrocarbons (free product) before the first development or sampling of any new well, and in any well that has historically contained free product.

#### **Equipment Checklist**

- ☐ Combination water level / free phase hydrocarbon indicator probe (probe)
- ☐ Gauging Data / Purge Calculations Sheet
- ☐ Pencil or Pen/sharpie
- ☐ Disposable Gloves
- ☐ Distilled Water and or know water source on site that is clean
- ☐ Alconox (powder) or Liquinox (liquid) non-phosphate cleaners—do not use soap!
- ☐ Buckets or Tubs for decontamination station
- ☐ Tools necessary to access wells
- ☐ Site Safety Plan
- ☐ This Standard Operating Procedure
- ☐ Notify Job site business that you will be arriving to conduct work.

#### **Procedure**

1. Review Site Safety Plan and utilize personal protection appropriate for the contaminants that may be encountered.
2. Access and open all monitoring wells to be measured. Allow wells to equilibrate for approximately 15 minutes before taking any measurements.

3. Decontaminate probe with Alconox or Liquinox solution, and rinse with distilled water.
4. Determine the diameter of the well to be measured and indicate this on the Gauging Data / Purge Calculations Sheet.
5. Words of caution: Please be careful with water level and product meters probes are not attached with high strength material so please make sure to avoid catching the end on anything in the well and make sure not to wind reel to the point that it could pull on the probe. ***If product is suspect in a well, go to step 6, if no product is suspected go to step 7 below.***
6. **When product is present or suspected:** use the product level meter. Clip the static charge clamp to the side of the well casing. Then lower probe into the well through the product/water interface about one foot if possible. Then slowly raise the probe back up through the product/water interface layer and record the level as the tone changes from solid to broken-record this level in the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTP). Continue to raise the probe up through the product until the tone stops completely-record this level on the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTW). Then go to step 8.
7. **When no product is present or suspected:** If no free product is present, record the depth of the water (to the nearest 0.01 foot) relative to the painted black mark on the top of the well casing. Leave the probe in the well just a hair above the water level to ensure the well as equilibrated. As the well rises, the tone will sound. Make sure no increase in water levels have occurred in over a ten-minute period. Water levels can lower as well as rise. Make sure you note when the level you keep lowering the probe to has remained stable for at least ten minutes. Once this has been accomplished, please record this level in the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTW).
8. Turn off the probe, and use the probe to determine the depth to the bottom of the well relative to the top of the well casing. This is the depth to bottom measurement (DTB).
9. Decontaminate probe and tape by washing in an Alconox/Liquinox solution (***read directions on solution for ratio of water to cleanser***) and use the toothbrush provided to remove any foreign substance from the probe and tape. Then triple rinse probe and tape with clean water and then proceed to take measurements in the next well.
10. If sampling is to occur, proceed to implement SounPacific's Standard Operating Procedure for Monitoring Well Purging and Sampling. If no sampling is to be performed, close and secure all wells and caps.



# Standard Operating Procedures

## Monitoring Well Purging and Groundwater Sampling

All SounPacific employees and contractors shall adopt the following procedures any time that groundwater samples are to be taken from an existing groundwater monitoring well.

Prior to the implementation of these procedures, the groundwater level **MUST** be measured and the presence of free phase hydrocarbons determined in accordance with SounPacific's Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements.

### Equipment Checklist

- ☐ **Gauging Data / Purge Calculations Sheet used for water level determination**
- ☐ Chain of Custody Form
- ☐ pH/ Conductivity / Temperature meter
- ☐ Pencil or Pen
- ☐ Indelible Marker
- ☐ Calculator
- ☐ Disposable Gloves
- ☐ Distilled Water
- ☐ Alconox/liquinox liquid or powdered non-phosphate cleaner
- ☐ Buckets or Tubs for decontamination station
- ☐ Bottom-filling bailer or pumping device for purging
- ☐ Disposable bottom-filling bailer and emptying device for sampling
- ☐ String, twine or fishing line for bailers
- ☐ Sample containers appropriate for intended analytical method (check with lab)
- ☐ Sample labels
- ☐ Site Safety Plan
- ☐ Tools necessary to access wells
- ☐ Drum space on site adequate for sampling event

### **Procedure**

1. Review Site Safety Plan and utilize personal protection appropriate for the contaminants that may be encountered.
2. Measure groundwater levels and check for the presence of free product in accordance with the Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements.

### **Purging**

3. Calculate and record the volume of standing water in each well using the information provided on the Gauging Data / Purge Calculations sheet.  
 $(DTB-DTW) \times \text{Conversion Factor} = \text{Casing Volume}$ .
4. The purge volume shall be at least three times and no more than seven times the volume of standing water (the casing volume).
5. Purge the well by bailing or pumping water from the well into a calibrated receptacle, such as a five gallon bucket or tub with markings to indicate one gallon increments. Collect purgeate in a 55 gallon labeled drum and store on site. Drum labels should include the date, contents, site number, and SounPacific's name and telephone number.
6. Take measurements of pH, conductivity, temperature, and visual observations to verify the stabilization of these parameters. At least five measurements of these parameters should be made throughout the purging process. The parameters shall be considered stabilized if successive measurements vary by less than 0.25 pH units, 10% of conductivity in  $\mu\text{S}$ , and  $1^{\circ}\text{C}$  (or  $1.8^{\circ}\text{F}$ ). Continue purging until at least three times the casing volume has been removed, and the measured parameters have stabilized as indicated above. Do not exceed seven casing volumes.
7. Take a final depth to groundwater measurement and calculate the casing volume of the recharged well. Ideally, the casing volume should have recharged to at least 80% of the original measured casing volume before sampling commences. If due to slow recharge rates it is not feasible to wait for the well to fully recharge, then note this on the Gauging Data / Purge Calculation Sheet and proceed to sample following the procedure below.

## **Sampling**

8. **After completing groundwater measurement, and checking for free product if necessary, in accordance with SounPacific's Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements, and after purging monitoring wells as described above, groundwater samples may be collected.**
9. Slowly lower a clean, previously unused disposable bailer into the well water approximately half of the bailer length, and allow the bailer to slowly fill.
10. Withdraw the full bailer from the monitoring well and utilize the included (clean and unused) bottom-emptying device to fill the necessary sample containers, and seal the container with the included PTFE (Teflon) lined cap.
11. When filling VOAs, fill the VOA completely full, with the meniscus rising above the rim of the bottle. Carefully cap the VOA and invert it and gently tap it to determine whether air bubbles are trapped inside. If the VOA contains air bubbles, refill the VOA and repeat this step.
12. All samples shall be labeled with the Sample ID, the Sample Date, and the Sample Location or Project Number. Use an indelible marker for writing on sample labels.
13. Record all pertinent sample data on the Chain of Custody.
14. Place samples in an ice chest cooled to 4°C with ice or "blue ice". Bottles should be wrapped in bubble wrap, and VOA's should be inserted in a foam VOA holder to protect against breakage. Samples are to be kept at 4°C until delivered to the laboratory. Any transference of sample custody shall be indicated on the Chain of Custody with the appropriate signatures as necessary.
15. Utilize clean, previously unused gloves, bailer and line, and bottom-emptying device for each well sampled.
16. When finished with all sampling, close and secure all monitoring wells.
17. Leave the site cleaner than when you arrived and drive safely.

# Appendix C

## GAUGING DATA/PURGE CALCULATIONS



RECEIVED

5/30/06

Job Site: Glendale 76Job No.: SP-150Event: 16th Quarterly MonitoringDate: 5-13-05

**SounPacific**  
Environmental Services  
(707) 269-0884

WELL NO.	DIA. (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPL (ft.)	Bailer Loads	Notes
MW-1	Z	19.25	12.70	6.55	1.1	3.3			
MW-2	Z	18.93	12.89	6.04	1	3			
MW-3	Z	19.5	12.42	7.08	1.1	3.3			
									Well Cap for MW-1 is broken
									please schedule for repairment

## Explanation:

DIA. = Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Saturated Thickness (DTB-DTW)

CV = Casing Volume (ST x cf)

PV = Purge Volume (standard 3 x CV,  
well development 10 x CV)

SPL = Thickness of Separate Phase Liquid

## Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.

4 in. dia. well cf = 0.65 gal./ft.

6 in. dia. well cf = 1.44 gal./ft.

Sampler:

Tien-yu Tai

## Well Gauging/Sampling Report

Sheet 1 of 3

Date: <u>5-13-06</u>		Project Name: <u>Glendale 76</u>		Project No: <u>SP-150</u>		Well Number: <u>14W-1</u>	
Analyses Tested: <u>TPHg, BTxE, 5 Oxy's, TPHd, TPHmo</u>							
Sample Containers: <u>3 Hil Vials (40ml), 2 Glass Bottles (1L)</u>							
Purge Technique:		<input type="checkbox"/> Bailor		<input checked="" type="checkbox"/> Pump			
Sounding Used:		<input type="checkbox"/> Water Meter		<input checked="" type="checkbox"/> Interface Meter			
Water & Free Product Levels							
Time	Depth to Water	Depth to Product	Notes:				
<u>12:58 pm</u>	<u>12.7</u>		<u>No Sheen</u>				
<u>1:12 pm</u>	<u>12.7</u>						
	<u>End</u>						
Field Measurements							
Time	Total Vol. Removed (gal)	pH	Temp (F)	Cond. (µm/cm)	DO (mg/L)	DO (%)	
<u>2:00 pm</u>	<u>0</u>	<u>5.42</u>	<u>58.08</u>	<u>0.134</u>	<u>0.53</u>	<u>5.2</u>	
<u>2:04</u>	<u>1.1</u>	<u>5.35</u>	<u>57.35</u>	<u>0.129</u>	<u>0.43</u>	<u>4.2</u>	
<u>2:08</u>	<u>2.2</u>	<u>5.26</u>	<u>57.41</u>	<u>0.131</u>	<u>0.64</u>	<u>6.3</u>	
<u>2:11</u>	<u>3.3</u>	<u>5.26</u>	<u>57.30</u>	<u>0.124</u>	<u>0.55</u>	<u>5.4</u>	
Field Scientist: <u>Tien-yu Tai</u>							



## Well Gauging/Sampling Report

Sheet 3 of 3

Date: <u>5-13-06</u>		Project Name: <u>Glendale 76</u>		Project No: <u>SP-150</u>		Well Number: <u>MW-3</u>	
Analyses Tested: <u>TPH, BTEX, SOXys, TPHd, TPHmo</u>							
Sample Containers: <u>3 Hil VDA's (40ml), 2 Glass Bottles (1L)</u>							
Purge Technique:		<input type="checkbox"/> Bailor		<input checked="" type="checkbox"/> Pump			
Sounder Used:		<input type="checkbox"/> Water Meter		<input checked="" type="checkbox"/> Interface Meter			
Water & Free Product Levels							
Time	Depth to Water	Depth to Product	Notes				
1:02 pm	12.42 ft		No Sheen				
1:15 pm	12.42						
	End						
Field Measurements							
Time	Total Vol. Removed (gal)	pH	Temp (F)	Cond. (ms/cm)	DO (mg/L)	DO (%)	
2:26 pm	0	4.72	57.76	0.055	1.04	10.1	
2:32	1.1	4.62	57.06	0.032	0.87	8.5	
2:36	2.2	4.62	57.23	0.039	0.80	7.7	
2:40	3.3	4.60	57.28	0.102	0.62	6.0	
<div style="text-align: right; margin-right: 100px;"> Field Scientist: <u>Tien-yu Tai</u> </div>							